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A NEW HYLID FROG OF THE GENUS *PLECTROHYLA* FROM A CLOUD FOREST IN HONDURAS

By

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The hylid genus *Plectrohyla* is a notable component of the highland forest herpetofauna of northern Middle America. The ten known species occur from southeastern Oaxaca, México, southward to western Honduras and El Salvador (Duellman, 1970). Recent work in the relatively poorly known cloud forests of Honduras has produced two new frog taxa (McCranie et al., 1980), including a new species of *Plectrohyla* described herein. Prior to this discovery, only one species of *Plectrohyla* (*P. guatemalensis*) had been reported from Honduras (Duellman, 1970; Meyer and Wilson, 1971).

In April of 1979 and May of 1980, we visited the cloud forest of the Sierra de Omoa in northwestern Honduras and worked in the region of Cerro Cusuco in the highest elevations of that range. Along the Quebrada Cusuco we collected several representatives of an undescribed species of *Plectrohyla,* which we here name

Plectrohyla dasypus new species
(Figure 1)

Holotype.—KU 186025, an adult male from along the Quebrada Cusuco at El Cusuco (15°30'N, 88°13'W), a finca located 5.6 km WSW Buenos Aires (the latter locality about 19 km N Cofradía), 1580 m, Sierra de Omoa, Departamento de Cortés, Honduras, ob-

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FIG. 1.—*Plectrohyla dasypus*, KU 186027, ♂, 40.0 mm.

tained on 14 April 1979 by James R. McCranie and Larry David Wilson.

Paratypes.—KU 186026-28, James R. McCranie and Larry David Wilson, 14 April 1979; KU 186029-31, Gustavo A. Cruz Díaz, James R. McCranie, and Larry David Wilson, 12-13 April 1979; KU 186032-34, James R. McCranie and Larry David Wilson, 21-22 May 1980; all from along the Quebrada Cusuco at El Cusuco between elevations of 1530-1660 m.

Definition.—A species of *Plectrohyla* distinguished from its congeners by the following combination of characteristics: small size (31.5-44.0 mm snout-vent length); dorsum smooth to weakly tuberculate; vocal slits present; no vertical rostral keel; prepollical spur short, flat, blunt; dorsum bronze and venter gray, without a dark lateral line or row of dark spots.

Description of holotype.—Adult male with snout-vent length (SVL) of 44.0 mm; tibia length 21.5 mm, 48.9 percent of SVL; foot length 19.5 mm, 44.3 percent of SVL; head length 13.2 mm, 30.0 percent of SVL; head width 14.7 mm, 33.4 percent of SVL. Snout short (4.0 mm in length), distance from anterior edge of orbit to tip of snout 80 percent of diameter of eye; snout truncate in lateral profile, in dorsal profile acuminate, lacking a vertical rostral keel; canthal ridge thickened; loreal region slightly concave; lips moderately thickened, barely flared. Nostrils protuberant, directed dorsolaterally, situated near tip of snout; internarial distance 3.2 mm; internarial area slightly depressed near point of convergence of canthal ridges; top of head flat; interorbital distance 4.8 mm, 32.7 percent of head width; diameter of eye 5.0 mm; width of eyelid

4.1 mm, 27.9 percent of head width. Heavy dermal fold extending posteriorly from posterior edge of orbit, barely covering upper edge of tympanum; remainder of tympanum distinct; length of tympanum 2.2 mm, 44.0 percent of eye diameter.

Arms robust, forearm slightly heavier than upper arm; distinct transverse fold on wrist. No axillary membrane. Fingers long, slender; length of fingers from shortest to longest, 1-2-4-3; disc on third finger slightly smaller than tympanum; webbing vestigial; subarticular tubercle large, subconical; terminal tubercle on fourth finger normal; supernumerary tubercles in single rows on proximal segments of fingers; prepollex short, flat, blunt, nonbifurcate, bone not protruding through skin. Heels overlapping slightly when hind limbs adpressed; no transverse dermal fold on heel; inner tarsal fold extending full length of tarsus; no outer tarsal fold; inner metatarsal tubercle ovoid, visible from above; no outer metatarsal tubercle. Toes long, slender; length of toes from shortest to longest, 1-2-5-3-4, fifth toe nearly as long as third; discs moderately large; subarticular tubercles moderately large, subconical; supernumerary tubercles small, in single row on proximal segment of each digit; toes about three-fourths webbed; webbing extending from base of penultimate phalanx of first toe to penultimate phalanx of second, from base of disc of second to base of penultimate phalanx of third, from base of disc of third to base of penultimate phalanx of fourth and on to base of disc of fifth toe.

Anal opening directed posteroventrally at level of mid-thigh; anal sheath short, broad. Skin on dorsal surfaces and throat weakly tuberculate, on chest, belly, and ventral surfaces of thighs and anus granular, on ventral surfaces of shanks smooth. Tongue nearly round, shallowly notched anteriorly and posteriorly and barely free behind. Upper jaw shallowly notched medially. Maxillary-premaxillary teeth spatulate, 58-60; prevomerine teeth 4-4, situated on small elliptical elevations between quadrangular choanae; vocal slits present.

Color in life: dorsum bronze with small scattered black spots; black stripe along canthus and above tympanum to above arm; mottled bronze and black subocular blotch present; venter and hidden leg areas dark gray; toe webbing gray; eye copper with black reticulations; chin gray with a bronze patina. Color in preservative: dorsum dark gray with small scattered black spots; venter gray.

Variation.—Measurements and proportions of all specimens are given in Table 1. Four of the six male paratypes have snout-vent lengths of 39.0-42.5 mm and have hypertrophied forelimbs. The other two males have snout-vent lengths of 31.8 and 35.9 mm and do not have hypertrophied forelimbs. One male (KU 186029) with

TABLE 1. Variation in measurements (in millimeters) and proportions in *Plectrohyla dasypus*. Character abbreviations are in brackets. Means are in parentheses following ranges.

Character	Males (n=7)	Females (n=3)
Snout-Vent length [SVL]	31.8-44.0 (39.0)	31.5-44.0 (37.5)
Tibia length [TL]	17.3-21.5 (19.9)	17.0-22.5 (19.3)
(TL/SVL)	48.9-54.4 (51.3)	50.0-54.0 (51.7)
Foot length [FL])	14.5-19.5 (16.8)	14.5-18.0 (16.1)
(FL/SVL)	41.3-45.6 (43.2)	41.0-46.0 (43.2)
Head length [HL]	10.0-13.2 (11.7)	10.1-12.8 (11.6)
(HL/SVL)	27.8-32.0 (30.0)	29.1-32.2 (31.1)
Head width [HW]	11.5-14.7 (13.5)	11.2-15.0 (13.1)
(HW/SVL)	33.4-36.5 (34.8)	34.1-35.6 (34.9)
Snout length [SL]	2.5-4.0 (3.1)	2.5-3.2 (2.9)
(SL/ED)	63.8-80.0 (71.8)	64.6-76.2 (68.9)
Eye diameter [ED]	3.8-5.0 (4.4)	3.8-4.8 (4.3)
Internarial distance [IND]	1.8-3.2 (2.3)	1.8-2.8 (2.3)
Interorbital distance [IOD]	4.0-5.0 (4.5)	4.0-5.2 (4.6)
(IOD/HW)	31.1-36.0 (33.3)	34.6-35.7 (35.0)
Eyelid width [EW]	3.2-4.2 (3.8)	2.8-4.0 (3.6)
(EW/HW)	25.0-29.6 (27.9)	25.0-30.0 (27.2)
Tympanum length [TL]	1.7-2.2 (2.0)	1.7-2.2 (1.9)
(TL/ED)	42.2-52.5 (45.7)	44.7-45.8 (45.2)

a snout-vent length of 42.5 mm has minute spines on the prepollex and the median surface of the first finger.

The color pattern of the male paratypes is essentially like that of the holotype. The dorsa of the smallest (KU 186028) and largest (KU 186033) females were bronze in life with small scattered black spots outlined by lime green. Other details of dorsal pattern of the females are like those of the holotype. In preservative, the venters of the three females are somewhat paler than those of the males.

Description of tadpole.—Three tadpoles (KU 186035) are presumed to be *Plectrohyla dasypus*. Two are in developmental stage 40 (Gosner, 1960), and have body lengths of 16.4 and 15.9 mm, and total lengths of 42.2 and 44.0 mm, respectively; the third is in developmental stage 38 and has a body length of 14.5 mm and a total length of 40.8 mm. Description of latter specimen is as follows: body ovoid in dorsal view; snout bluntly rounded in dorsal profile; eyes small, directed dorsolaterally; nostrils directed anterolaterally at a point slightly closer to eyes than to tip of snout; spiracle sinistral, on midline at midlength of body; cloacal tube long, dextral; caudal musculature moderately robust, extending nearly to tip of tail; fins shallow, caudal musculature at midlength of tail deeper than either dorsal or ventral fins; dorsal fin not extending onto body.

In preservative, body dark grayish brown; caudal musculature creamy tan, marked with dark brown flecks throughout length; fins

translucent, marked with dark brown spots, spots more numerous on dorsal fin.

Mouth ventral, a little over half as wide as body at greatest width; oral disc not emarginate; edge of oral disc completely bordered by single row of small papillae; row of larger papillae present medially to fringing row; beaks well developed, possesing long, pointed serrations of equal length; upper beak in form of broad arch, lacking lateral processes; lower beak moderately robust, broadly V-shaped; labial tooth formula 2(2)3, upper rows long and equal in length, second upper row narrowly interrupted medially; lower rows of equal length, being only slightly shorter than upper rows.

Two nearly metamorphosed individuals were collected. One (KU 186037) is in developmental stage 44 (Gosner, 1960), and has a body length of 16.7 mm and a total length of 25.8 mm. The other (KU 186036) is in developmental stage 45 and has a body length of 17.1 mm.

Comparisons.—Duellman (1970) placed the ten species of *Plectrohyla* then known into two groups. One group, including *P. avia, glandulosa, guatemalensis, hartwegi, lacertosa,* and *pycnochila* is characterized by medium to large size (44.6-86.2 mm mean snout-vent length in adult males) and absence of vocal slits. The second group, including *P. ixil, matudai, quecchi,* and *sagorum,* is characterized by small size (33.1-42.2 mm mean snout-vent length in adult males) and presence of vocal slits.

Plectrohyla dasypus has vocal slits and a mean snout-vent length of 41.0 mm in five males with hypertrophied forelimbs and thus is distinct from the six species in the first group. A vertical rostral keel is lacking in *Plectrohyla dasypus,* whereas it is present in *P. sagorum* and P. *quecchi. Plectrohyla dasypus* has a short, flat, blunt prepollical spine. In *P. sagorum, P. quecchi, P. ixil,* and *P. matudai* the prepollical spine is long, pointed, and distally curved. The dorsum of *P. dasypus* is weakly tuberculate, that of *P. quecchi* and *P. matudai* is tuberculate. The mean snout-vent length of adult males of *P. dasypus* is 41.0 mm. *Plectrohyla ixil* is slightly smaller, with a mean snout-vent length of adult males of 38.9 mm and *P. matudai* is a smaller species with a mean snout-vent length of adult males of 33.1 mm. *Plectrohyla ixil* has a broad pale lateral stripe, bordered below by a dark line separating the color of the dorsum from that of the venter; this pattern is lacking in *P. dasypus.*

The tadpoles presumed to be *Plectrohyla dasypus* are distinguishable from the other members of the *sagorum* group. *Plectrohyla dasypus* tadpoles lack lateral processes on the upper beak, whereas *P. sagorum* tadpoles have moderately robust lateral processes. In *P. dasypus* tadpoles all three lower rows of denticles are of equal length, whereas in *P. quecchi, P. ixil,* and *P. matudai* the